BookletChart™

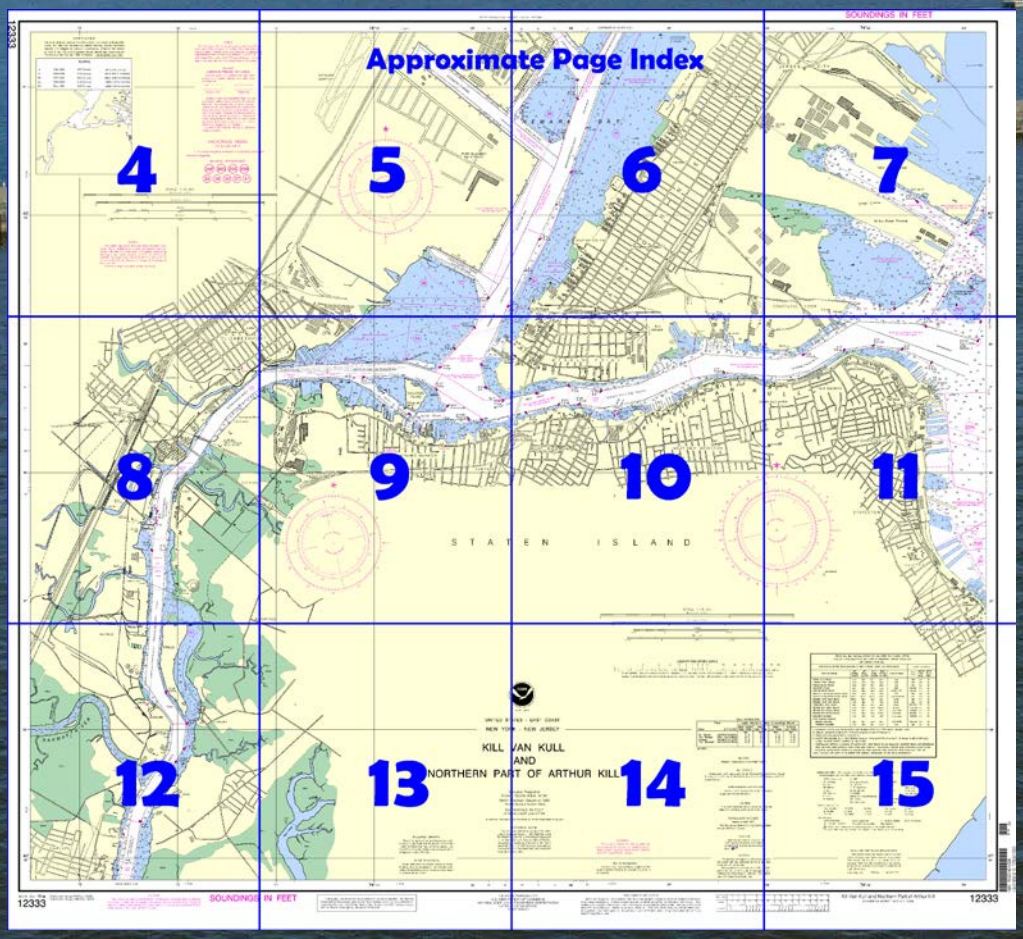
Kill Van Kull and Northern Part of Arthur Kill

NOAA Chart 12333

A reduced-scale NOAA nautical chart for small boaters

When possible, use the full-size NOAA chart for navigation.

- *Complete, reduced-scale nautical chart*
- *Print at home for free*
- *Convenient size*
- *Up-to-date with Notices to Mariners*
- *Compiled by NOAA's Office of Coast Survey, the nation's chartmaker*



Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

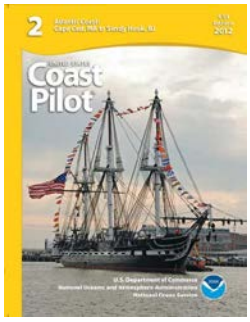
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=12333



(Selected Excerpts from Coast Pilot)
Arthur Kill is the narrow body of water separating Staten Island from New Jersey. The cities of Perth Amboy, Tottenville, Elizabeth, many large factories, and oil refineries and storage facilities are on its shores. Northern Arthur Kill and Kill Van Kull are the major channels for bulk, containerized, and petroleum cargo in New York Harbor.
Federal project depth in Arthur Kill is 35 feet. Numerous sunken and visible wrecks are adjacent to both sides of the channel in Arthur Kill; caution is advised.
A liquefied petroleum gas (LPG) facility is on the west side of Arthur Kill south of **Morses Creek**. A moving **safety zone** has been established around loaded LPG vessels transiting between Scotland Lighted Horn Buoy S at the entrance to Sandy Hook Channel and the LPG facility.
The mean range of tide in Arthur Kill is about 5 feet. Throughout Arthur Kill the flood sets from Raritan Bay to Newark Bay and the ebb in reverse direction. Velocities of current vary from about 1 to 1.5 knots.
In October 1991, tidal currents in Arthur Kill were reported to deviate significantly from official predictions published by the National Ocean Service. Mariners should exercise caution and discretion in the use of published tidal current predictions.
Rahway River enters Arthur Kill from westward, about 7.2 miles above Ward Point, and extends westward for about 4.5 miles to the town of **Rahway**. It is used only by small craft. In May 1981, a reported depth of 5 feet could be taken to Lamberts Wharf about 2.1 miles above the mouth and about 0.5 mile above the New Jersey Turnpike bridge.
Name or location, type of span, distance above mouth, and clearances of the bridges over Rahway River are as follows: East Rahway, bascule, 1.7 miles, 6 feet; Linden and Carteret, fixed, 1.8 miles, 36 feet; Lawrence Street, fixed, 3.8 miles, 6 feet; U.S. Route 1/9, fixed, 3.9 miles, 23 feet; Milton Avenue, fixed 42-foot span, 4.2 miles, 4 feet; Monroe Avenue, fixed 30-foot span, 4.4 miles, 7 feet.
The **Goethals Bridge**, 10 miles above Ward Point, has a fixed span with a clearance of 137 feet over Arthur Kill just southward of Elizabethport. The railroad bridge, 200 yards above Goethals Bridge, has a vertical lift span with a clearance of 31 feet down and 135 feet up. The bridgetender at the railroad bridge monitors VHF-FM channel 13; call sign KXS-237.
Elizabethport, about 11 miles above Ward Point, is the eastern part of the city of **Elizabeth**. It is at the northern end of Arthur Kill at its junction with Newark Bay.
Elizabeth River enters Arthur Kill from westward at Elizabethport. The overhead power cable just above the entrance has a clearance of 59 feet. South Front Street Bridge, just above the mouth of the river, has a bascule span with a clearance of 3 feet; South First Street Bridge, 0.5 mile above the mouth has a bascule span with a clearance of 5 feet; and Elizabethport railroad bridge, 0.8 mile above the mouth, has a bascule span with a clearance of 14 feet. The bridges above the railroad bridge have a least clearance of 3 feet.
Kill Van Kull separates the southern shore of the city of Bayonne from Staten Island and connects the Upper Bay of New York Harbor with Newark Bay and Arthur Kill. Kill Van Kull is a major channel for petroleum and bulk cargo in New York Harbor, and has extensive through traffic and large factories on its shores.
Physical Oceanographic Real-Time System (P.O.R.T.S.) is an information acquisition and dissemination technology developed by National Ocean Service, NOAA. The Port of New York and New Jersey Physical Oceanographic Real-Time System can be contacted via telephone 866-217-6787 or the Internet at: http://www.co-ops.nos.noaa.gov.
Caution.–Numerous sunken and visible wrecks are adjacent to both sides of the channel in Arthur Kill; caution is advised.
A liquefied petroleum gas (LPG) facility is on the west side of Arthur Kill immediately south of **Morses Creek**. A moving **safety zone** has been established around loaded LPG vessels transiting between Scotland Lighted Whistle Buoy S at the entrance to Sandy Hook Channel and the LPG facility. (See **165.1 through 165.7, 165.20 through 165.25, and 165.160**, chapter 2, for limits and regulations.)

U.S. Coast Guard Rescue Coordination Center
24 hour Regional Contact for Emergencies

RCC Boston	Commander 1st CG District Boston, MA	(617) 223-8555

Table of Selected Chart Notes

Mercator Projection
Scale 1:15,000 at Lat. 40°35'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

CAUTION

SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

NOTE B

The U.S. Coast Guard operates a mandatory Vessel Traffic Services (VTS) system in the New York Bay and surrounding areas. Vessel operating procedures and designated radiotelephone frequencies are published in 33 CFR 161, the U.S. Coast Pilot, and/or the VTS User's Manual. The entire area of the chart falls within the Vessel Traffic Services (VTS) system.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 2. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 1st Coast Guard District in Boston, MA or at the Office of the District Engineer, Corps of Engineers in New York, NY.

Refer to charted regulation section numbers.

13' 12' 11'

2 130 000

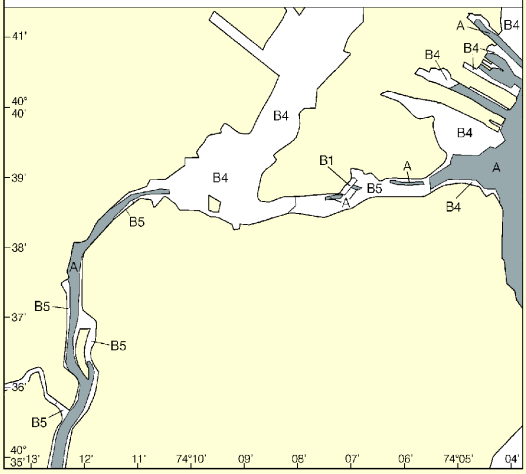
670 000

41' 40° 40' 39'

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

SOURCE			
A	1990-2007	NOS Surveys	full bottom coverage
B1	1990	NOS Surveys	partial bottom coverage
B4	1900-1939	NOS Surveys	partial bottom coverage
B5	Pre - 1900	NOS Surveys	partial bottom coverage



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Pipeline Area *Cable Area*

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Covered wells may be marked by lighted or unlighted buoys.

ANCHORAGE AREAS

110.155 (see note A)

Limits and assigned numbers of anchorage areas are shown in magenta.

GENERAL ANCHORAGES

20F 20G 23A 23B 24 34 36 37 41

SCALE 1:15,000

Nautical Miles ½ 0 ½ 1

Statute Miles ½ 0 ½ 1

Yards 500 0 500 1000 1500

Meters 500 0 500 1000 1500

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 2. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 1st Coast Guard District in Boston, MA or at the Office of the District Engineer, Corps of Engineers in New York, NY.

Refer to charted regulation section numbers.

PORT ELIZABETH SOUTH AND PORT NEWARK CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF NOV 2011 AND SURVEYS TO JUN 2011

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
PORT ELIZABETH SOUTH REACH	41.0	42.2	45.0	6-11	140-290	0.43	45
PORT NEWARK : PIERHEAD REACH	31.4	30.8	27.9	6-11	300-750	0.65	40

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

E SPIRE

CHURCH DOME

ELIZABETHPORT

Joins page 8

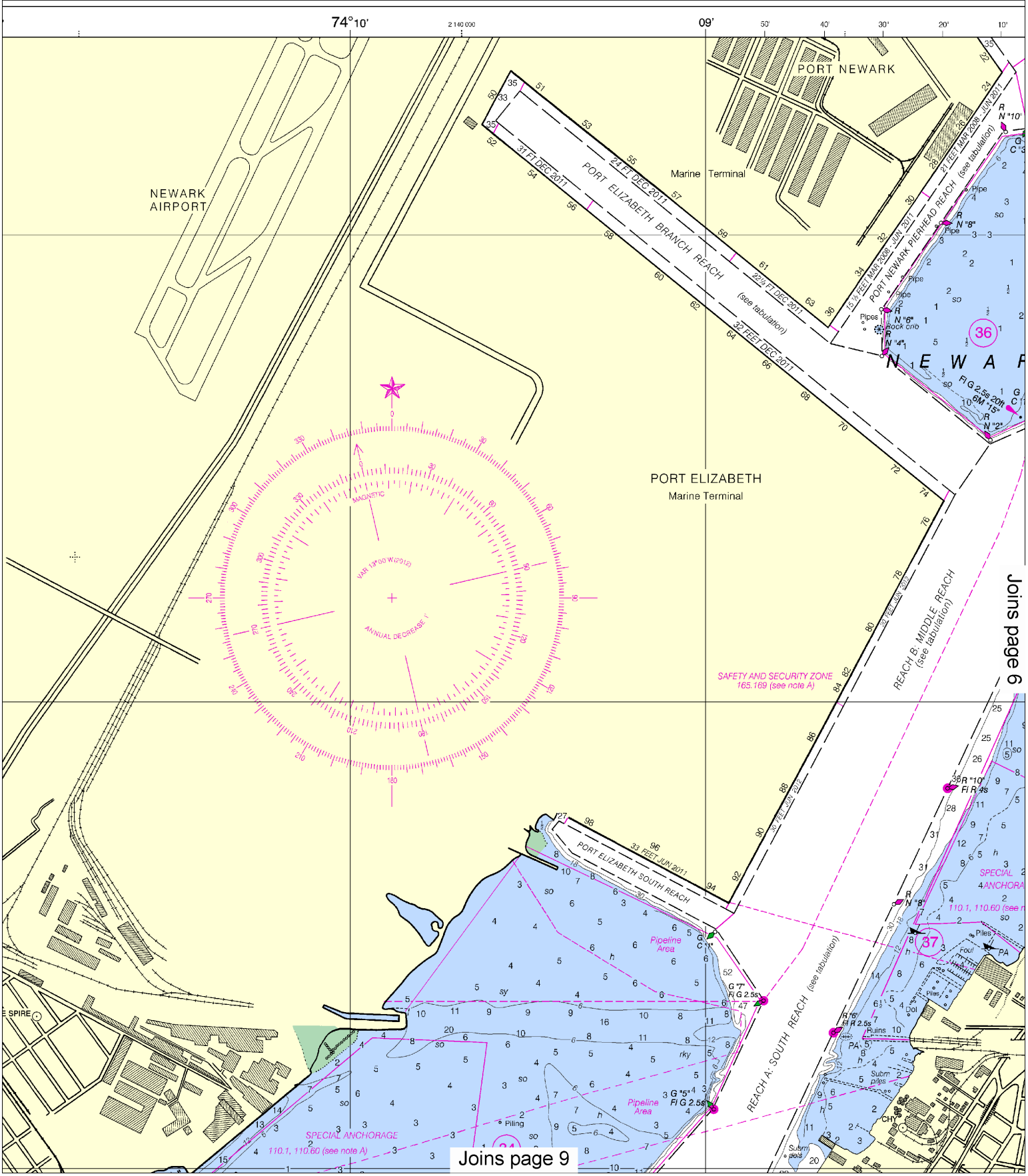
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:15,000~~

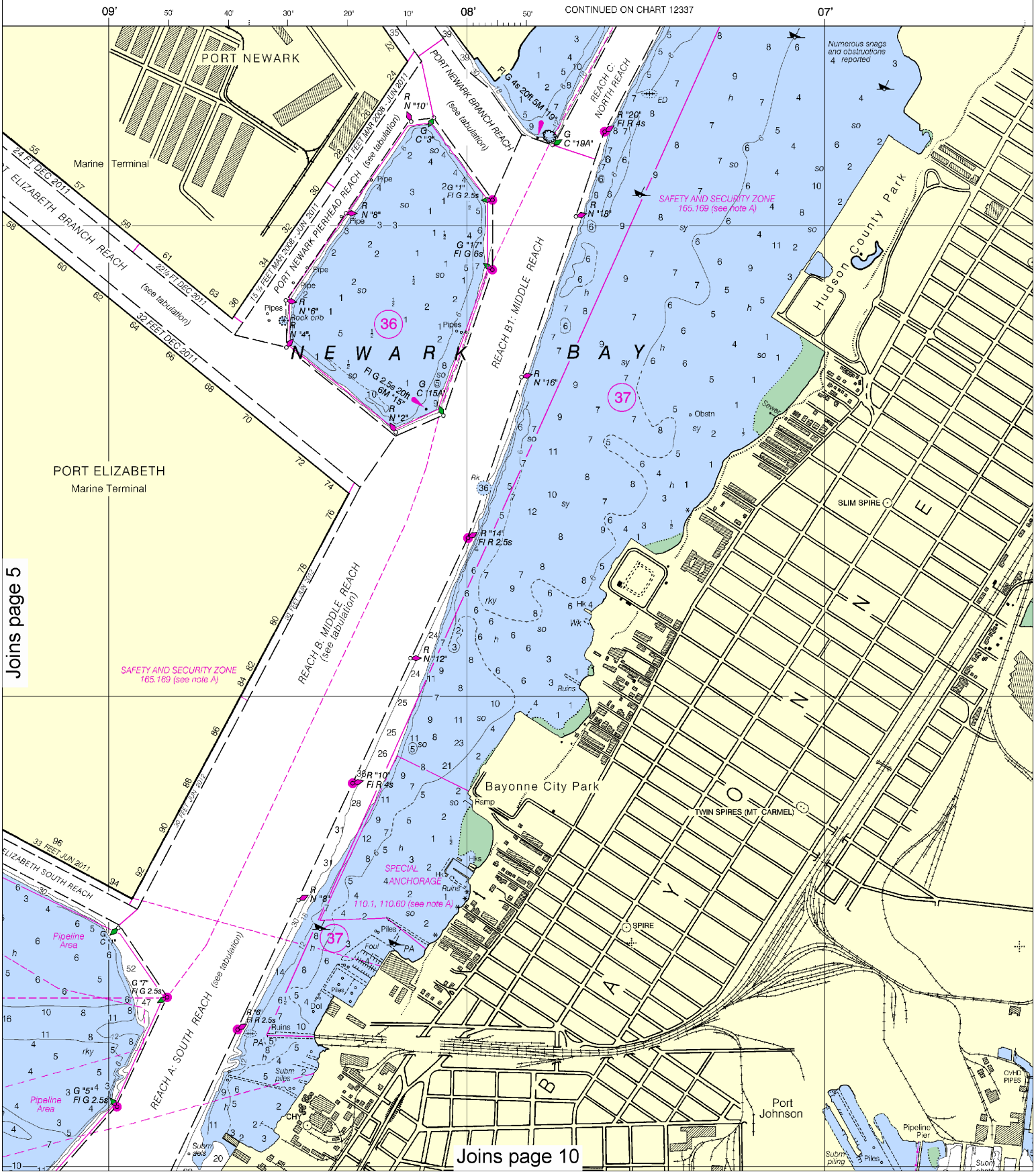
Nautical Miles 0 1

Yards 500 0 500 1000 1500

See Note on page 5.



This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:20000. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.



Printed at reduced scale. ~~SCALE 1:15,000~~

See Note on page 5.

Nautical Miles

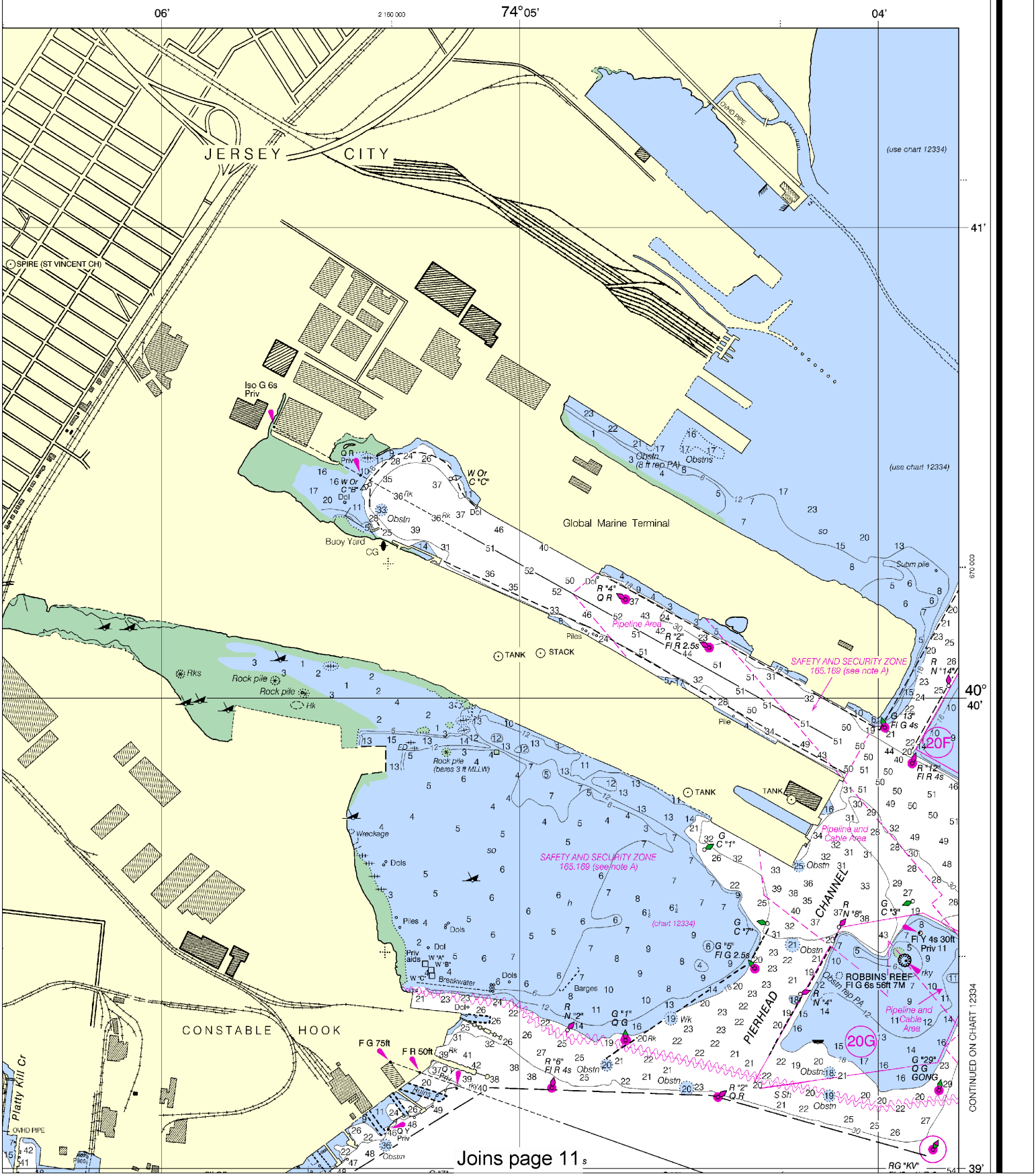
0 1

Yards

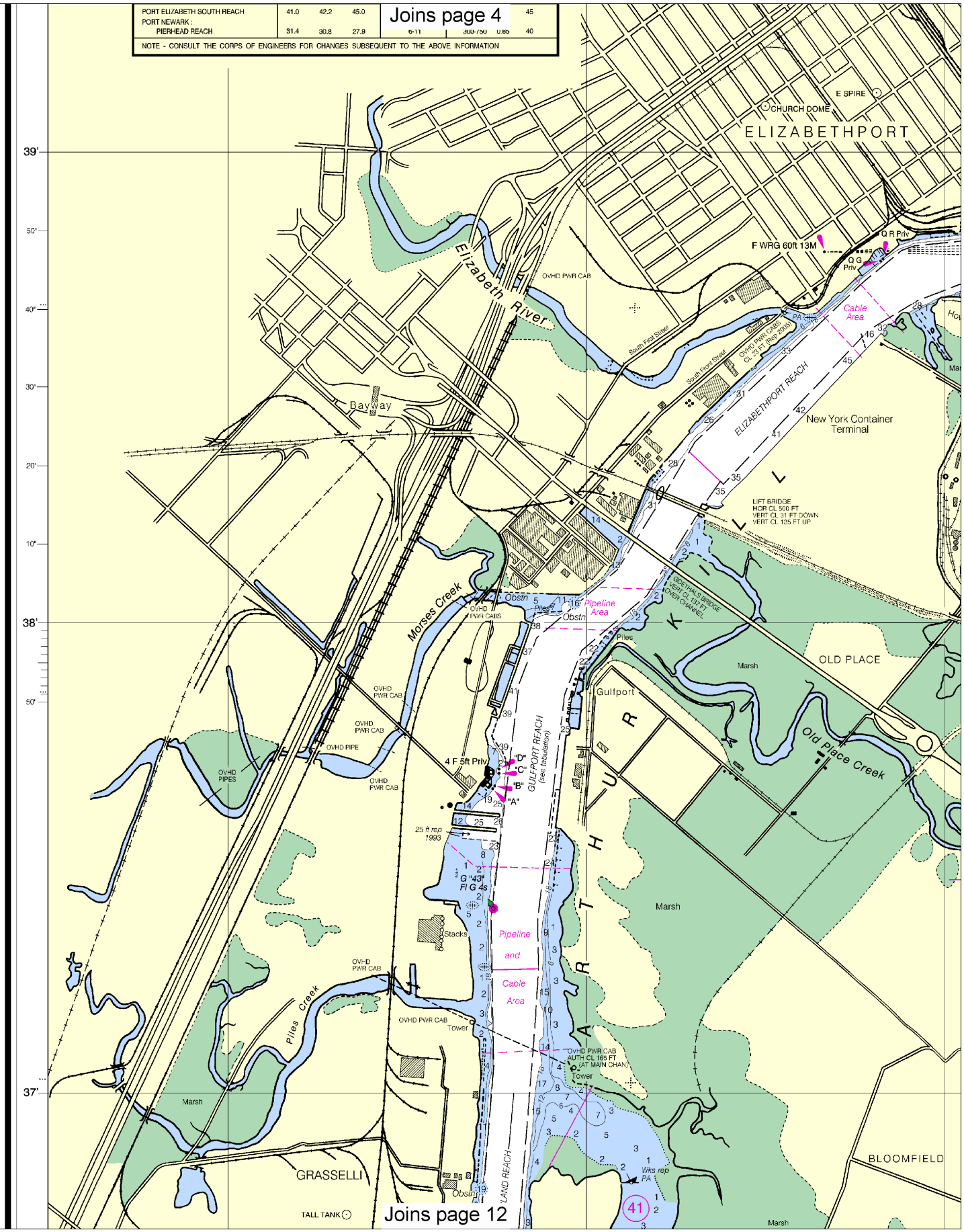
500 0 500 1000 1500

Note: Chart grid lines are aligned with true north.

SOUNDINGS IN FEET



This BookletChart has been updated through: Coast Guard Local Notice To Mariners: 5112 12/18/2012,
NGA Weekly Notice to Mariners: 5212 12/29/2012,
Canadian Coast Guard Notice to Mariners: 1112 11/30/2012.



Printed at reduced scale. ~~SCALE 1:15,000~~

See Note on page 5.

Nautical Miles

0 1

Yards

500 0 500 1000 1500

Note: Chart grid lines are aligned with true north.

Joins page 5


SPECIAL ANCHORAGE
110.1, 110.60 (see note A)
Pipeline Area
NORTH OF SHOOTERS ISLAND REACH
NEW YORK
VESSEL TRAFFIC SERVICES AREA
(see note B)
REACH A: SOUTH
SHOOTERS
ISLAND
Fl R 4s 19ft
3M "2"
SOUTH OF SHOOTERS ISLAND REACH
BERGEN POINT WEST REACH
Howland Hook
Port Ivory
Marsh
Subm dike
Wks
Foul
Obstn
Ruins
Piling
Submerged piles
Mooring barge
CHY
Piles
Dols
R "20"
Fl R 4s
R "18"
Fl R 4s
G "3"
Fl G 4s
G "5"
Fl G 2.5s
G "19"
Fl G 4s
GR "E"
Fl (2+1) G 6s
G "17"
Fl G 2.5s
R "16"
Q R
R "2"
Fl R 2.5s
R "4"
Fl R 4s
R "14"
Fl R 2.5s
G "15"
Fl G 4s
GR "A"
Fl (2+1) G 6s
G
C "21"
R
N "24"
Fl R 4s 25ft 3M "22"
R
N "4"
G "WR1"
Q G
BAYONNE FIXED BRIDGE
HOR CL 800 FT
VERT CLEARANCES
136 FT AT N CHAN EDGE
144 FT AT S CHAN EDGE
151 FT AT CHAN CENTERLINE
Cable and
Pipeline Area
Cable Area
MARINERS HARBOR
ARLINGTON
ELM PARK
PORT RICHM
MAGNETIC
VAR 13°00'W (2012)
ANNUAL DECREASE 1'
S T A T E N
Joins page 10
Joins page 13

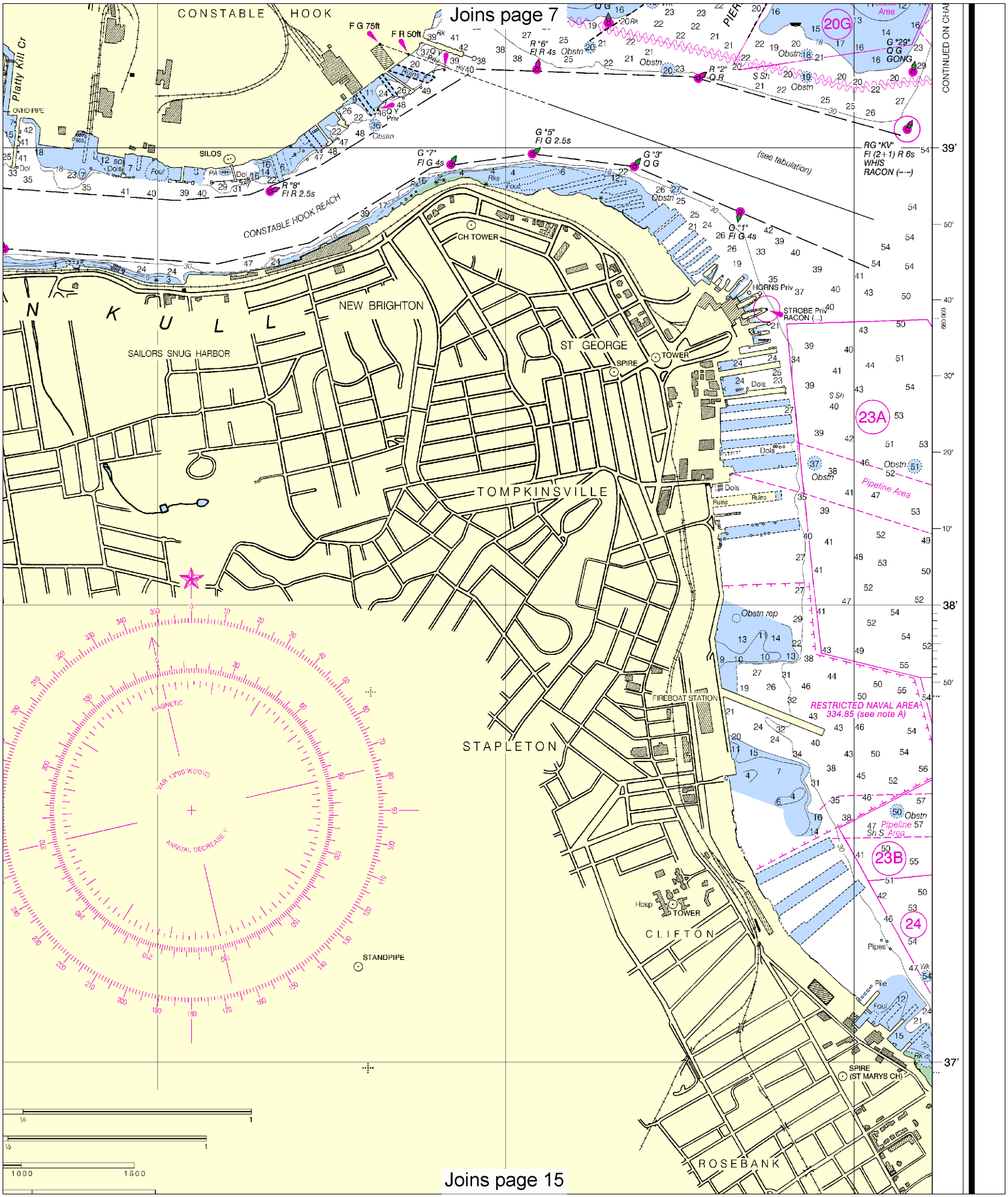
Note: Chart grid lines are aligned with true north.

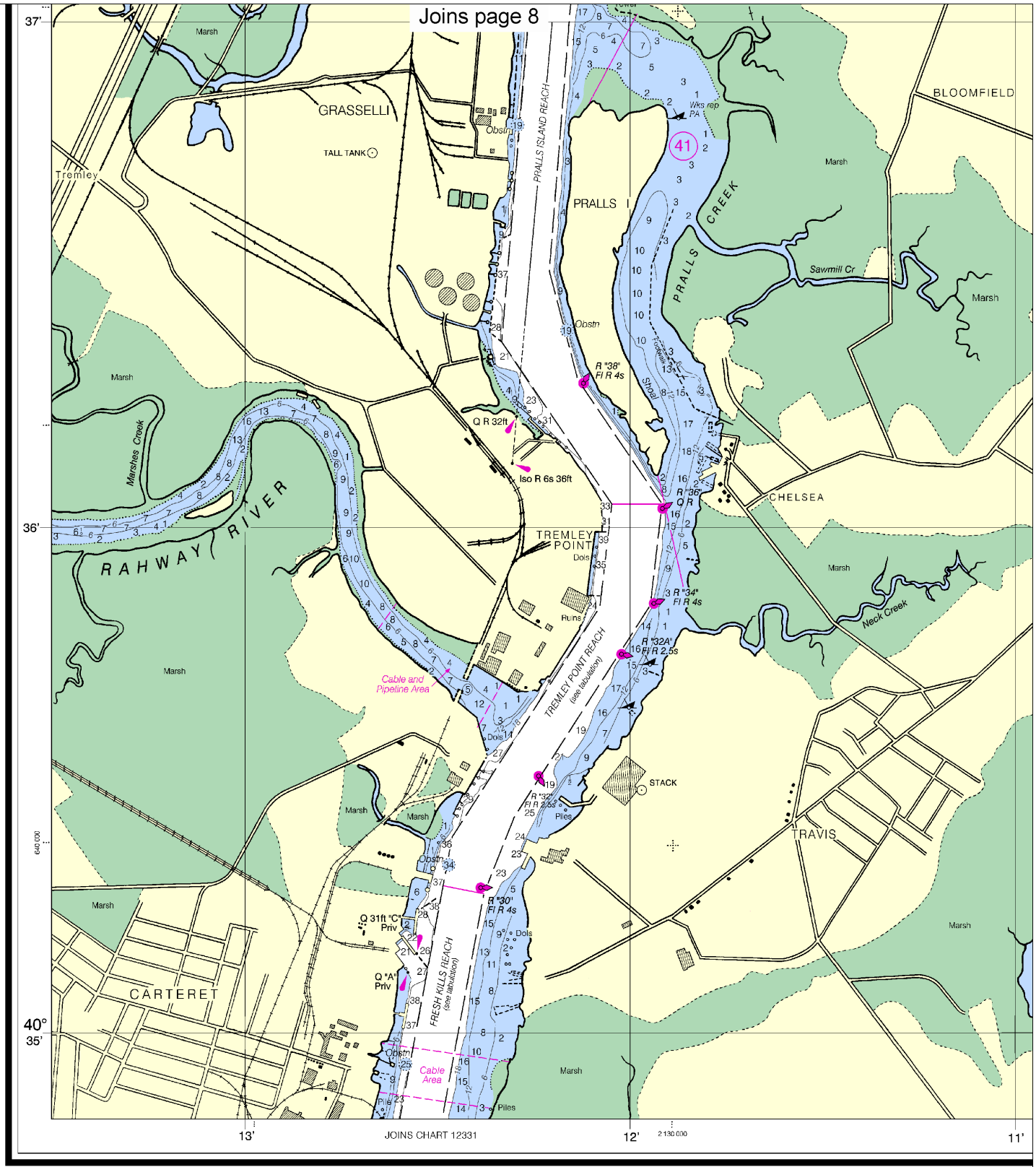
Printed at reduced scale. ~~SCALE 1:15,000~~

Nautical Miles: 0 — 1

Yards: 500 — 0 — 500 — 1000 — 1500

See Note on page 5.


CONSTABLE HOOK
Joins page 7
Platty Kill Cr
OVHD PIPE
SILOS
F G 75ft
F R 50ft
CONSTABLE HOOK REACH
G "7" Fl G 4s
R "8" Fl R 2.5s
G "5" Fl G 2.5s
G "3" Q G
R "6" Fl R 4s
R "2" Q R
G "1" Fl G 4s
G "29" Q G GONG
RG "KV" Fl (2+1) R 6s WHIS RACON (–··–)
(see tabulation)
CH TOWER
NEW BRIGHTON
SAILORS SNUG HARBOR
ST GEORGE
SPIRE
TOWER
HORNS Priv
STROBE Priv RACON (...)
TOMPKINSVILLE
Pipeline Area
Obstn rep
FIREBOAT STATION
RESTRICTED NAVAL AREA 334.85 (see note A)
STAPLETON
Pipeline Area
Hosp
TOWER
CLIFTON
STANDPIPE
Pipes
Pile
SPIRE (ST MARYS CH)
ROSEBANK
20G
23A
23B
24
CONTINUED ON CHA
Joins page 15



37th Ed., Dec. / 12 ■
Corrected through NM Dec. 22/12
Corrected through LNM Dec. 11/12

12333

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

SOUNDINGS IN F

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:15,000~~

Nautical Miles

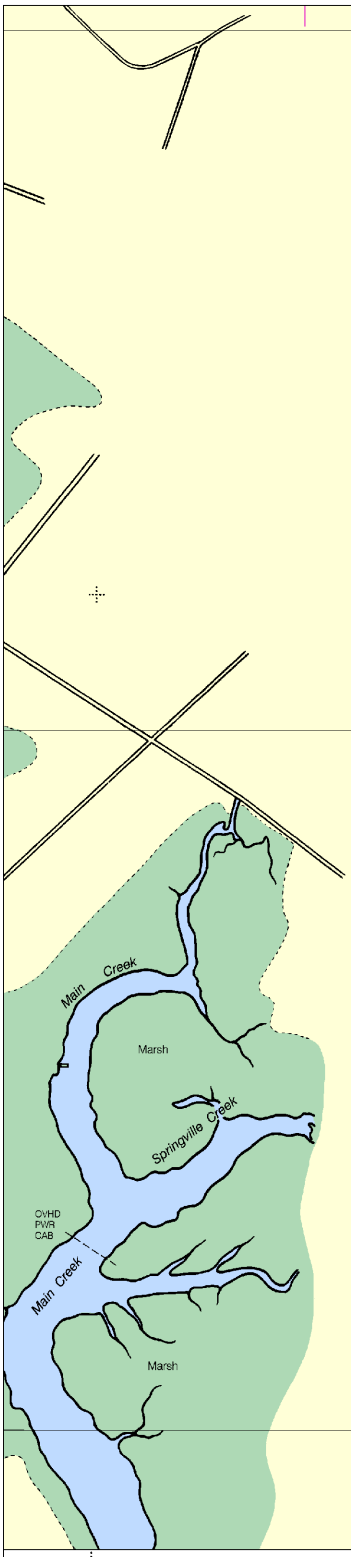
0 1

Yards

500 0 500 1000 1500

See Note on page 5.

Joins page 9



THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - EAST COAST

NEW YORK - NEW JERSEY

KILL VAN KULL AND NORTHERN PART OF AR

Mercator Projection
Scale 1:15,000 at Lat. 40°35'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

Additional information can be obtained at nauticalcharts.n

Joins page 14

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.372" northward and 1.483' eastward to agree with this chart.

HURRICANES AND TROPICAL STORMS

Hurricanes, tropical storms and other major storms may cause considerable damage to marine structures, aids to navigation and moored vessels, resulting in submerged debris in unknown locations.

Charted soundings, channel depths and shoreline may not reflect actual conditions following these storms. Fixed aids to navigation may have been damaged or destroyed. Buoys may have been moved from their charted positions, damaged, sunk, extinguished or otherwise made inoperative. Mariners should not rely upon the position or operation of an aid to navigation. Wrecks and submerged obstructions may have been displaced from charted locations. Pipelines may have become uncovered or moved.

Mariners are urged to exercise extreme caution and are requested to report aids to navigation discrepancies and hazards to navigation to the nearest United States Coast Guard unit.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

74°10' 2 140 000 09' 50" 40" 30" 20" 10"

FEET

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

Joins page 10

SCALE 1:15,000
Nautical Miles
⅓ 0
Statute Miles
½ 0 ½
Yards
500 0 500
Meters
500 0 500

THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - EAST COAST

NEW YORK - NEW JERSEY

LOGARITHMIC SPEED SCALE
1 2 3 4 5 6 7 8 9 10 15

To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes
right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical mil

KILL VAN KULL AND RTHERN PART OF ARTHUR KILL

PLACE
NAME
St. George
Port Newark
Chelsea
Port Elizabeth
Dashes (- - -) located in datum colum tide predictions, and tidal current pred

(Nov 2012)

Mercator Projection
Scale 1:15,000 at Lat. 40°35'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

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Mariners are urged to exercise extreme caution and are requested to report aids to navigation discrepancies and hazards to navigation to the nearest United States Coast Guard unit.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

Hydrography ar
Survey, with addi
Coast Guard.

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Ten
navigati
Local N
Dur
gered b
replaced
see U.S

09' 50' 40' 30' 20' 10' 08' 50' 2 150 000 07'

Joins page 13

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

FATHOMS
FEET
METERS

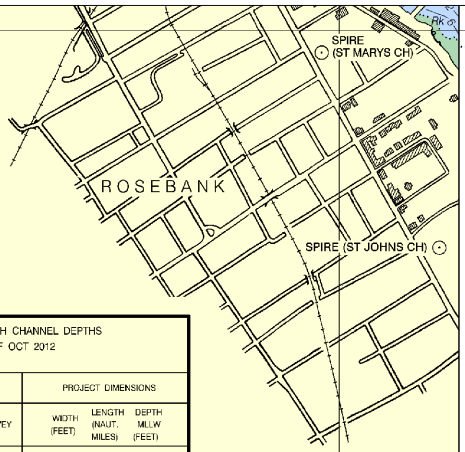
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:15,000~~ See Note on page 5.

Nautical Miles
0 1

Yards
500 0 500 1000 1500

Joins page 11



1/5 1

1/2 1

1000 1500

1000 1500

15 20 25 30 40 50 60

es run. Without changing divider spread, place
miles run in 15 minutes, the speed is 16.0 knots.

ARTHUR KILL, KILL VAN KULL, NEWARK BAY, PORT NEWARK AND PORT ELIZABETH CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF OCT 2012
AND SURVEYS TO JUN 2012

	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
ARTHUR KILL (A)								
FRESH KILLS REACH	32.0	34.8	36.1	33.2	4,5,6-12	500	1.65	35
TREMLEY POINT REACH	30.0	36.4	35.6	34.2	4,5,6-12	500	0.65	35
PRALLS ISLAND REACH	30.8	34.2	36.2	26.7	4,5,6-12	500	1.13	35
GULFPORT REACH	28.2	36.5	35.9	29.4	4,5,6-12	500-600	1.03	35
ELIZABETHPORT REACH	40.1	43.1	43.9	39.7	1,2-11	600-800	0.91	35
NORTH OF SHOOTERS ISLAND REACH	40.9	43.4	39.3	36.8	1,2-11	800	0.97	35
SOUTH OF SHOOTERS ISLAND REACH	B6.5	B13.8	B14.5	B10.1	11-04	400	0.94	30
KILL VAN KULL (A)								
BERGEN POINT WEST REACH	49.0	52.8	52.5	47.4	1,2-11	800-1150	1.12	45
BERGEN POINT EAST REACH	48.5	52.8	53.0	50.1	1,2-11	800	1.09	45
CONSTABLE HOOK REACH	45.4	46.2	48.3	49.1	1,2-11	800-2000	2.52	45
NEWARK BAY								
REACH A: SOUTH REACH	45.3	48.3	49.1	40.8	5,6-12	1000-3410	1.31	45
REACH B: MIDDLE REACH	46.1	48.2	49.0	48.3	5,6-12	800-1700	0.88	45
REACH B1: MIDDLE REACH	34.3	36.9	33.4	26.7	5,6-12	520-900	0.53	40
REACH C: NORTH REACH	17.5	21.5	19.3	7.4	5,6-12	520-1030	1.36	35
PORT NEWARK								
BRANCH REACH	26.4	37.4	35.2	29.5	6-11	400-1775	0.37	40
PORT ELIZABETH BRANCH REACH	39.8	40.0	39.4	37.2	12-11	500-800	1.26	45

A. CONTROLLING DEPTHS IN ARTHUR KILL AND KILL VAN KULL ARE REFERENCED FROM SEAWARD WHEN ENTERING FROM LOWER BAY.
B. NUMEROUS WRECKS AND OBSTRUCTIONS WITH MINIMUM DEPTH TO 4 FEET WITHIN CHANNEL LIMITS.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

TIDAL INFORMATION

	Height referred to datum of soundings (MLLW)		
(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water
	feet	feet	feet
(40°39'N/74°04'W)	5.0	4.7	0.2
(40°41'N/74°06'W)	5.7	5.3	0.2
(40°36'N/74°12'W)	5.6	5.2	0.2
(40°40'N/74°08'W)	5.6	5.2	0.2

umns indicate unavailable datum values for a tide station. Real-time water levels, redictions are available on the Internet from http://tidesandcurrents.noaa.gov.

HEIGHTS

eights in feet above Mean High Water.

AUTHORITIES

and topography by the National Ocean Service, Coast ditional data from the Corps of Engineers and U.S.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 2 for important plemental information.

CAUTION

proved channels shown by broken lines are ect to shoaling, particularly at the edges.

PLANE COORDINATE GRID
(based on NAD 1927)

New Jersey State Grid is indicated by dotted 5,000 foot intervals.

CAUTION

Mariners are warned to stay clear of the protective riprap surrounding navigational light structures shown thus:

CAUTION

emporary changes or defects in aids to ation are not indicated on this chart. See Notice to Mariners.
uring some winter months or when endan- by ice, certain aids to navigation are ed by other types or removed. For details .S. Coast Guard Light List.

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)
Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical
Al alternating
B black
Bn beacon
C can
DIA diaphone
F fixed
Fl flashing
G green
IQ interrupted quick
Iso isophase
LT HO lighthouse
M nautical mile
m minutes
MICRO TR microwave tower
Mkr marker
Mo morse code
N nun
OBSC obscured
Oc occulting
Or orange
Q quick
R red
Ra Ref radar reflector
R Bn radiobeacon
R TR radio tower
Rot rotating
s seconds
SEC sector
St M statute miles
VQ very quick
W white
WHIS whistle
Y yellow

Bottom characteristics:

Blds boulders
bk broken
Cy clay
Co coral
G gravel
Grs grass
gy gray
h hard
M mud
Oys oysters
Rk rock
S sand
so soft
Sh shells
sy sticky

Miscellaneous:

AUTH authorized
ED existence doubtful
Obstn obstruction
PA position approximate
PD position doubtful
Rep reported
Subm submerged

(21) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

New York, NY KWO-35 162.550 MHz

37'
36'
40° 35'
640 000
2 160 000
06'
74° 05'
04'
814.3 X 915.0 mm

MS 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102
YS 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Kill Van Kull and Northern Part of Arthur Kill
SOUNDINGS IN FEET - SCALE 1:15,000

12333

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.
Channel 9 – Communications between boats and ship-to-coast.
Channel 13 – Navigation purposes at bridges, locks, and harbors.
Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.
Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.
Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!

All Hazards NOAA Weather Radio NOAA's National Weather Service

NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.
http://www.nws.noaa.gov/nwr/

Quick References

Nautical chart related products and information	—	**http://www.nauticalcharts.noaa.gov**
Online chart viewer	—	**http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html**
Report a chart discrepancy	—	**http://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx**
Chart and chart related inquiries and comments	—	**http://ocsdata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs**
Chart updates (LNM and NM corrections)	—	**http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html**
Coast Pilot online	—	**http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm**
Tides and Currents	—	**http://tidesandcurrents.noaa.gov**
Marine Forecasts	—	**http://www.nws.noaa.gov/om/marine/home.htm**
National Data Buoy Center	—	**http://www.ndbc.noaa.gov/**
NowCoast web portal for coastal conditions	—	**http://www.nowcoast.noaa.gov/**
National Weather Service	—	**http://www.weather.gov/**
National Hurrican Center	—	**http://www.nhc.noaa.gov/**
Pacific Tsunami Warning Center	—	**http://ptwc.weather.gov/**
Contact Us	—	**http://www.nauticalcharts.noaa.gov/staff/contact.htm**

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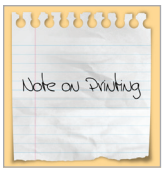

This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.

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